

Memory Module Specification



KHX2000C9AD3W1K3/6GX

6GB (2GB 256M x 64-Bit x 3 pcs.) DDR3-2000MHz CL9 240-Pin DIMM Kit

DESCRIPTION:

Kingston's KHX2000C9AD3W1K3/6GX is a kit of three 256M x 64-bit 2GB (2048MB) DDR3-2000MHz CL9 SDRAM (Synchronous DRAM), water cooled, memory modules, based on sixteen 128M x 8-bit DDR3 FBGA components per module. Each module kit supports Intel® XMP (Extreme Memory Profiles). Total kit capacity is 6GB. Each module kit has been tested to run at DDR3-2000MHz at a low latency timing of 9-10-9 at 1.65V. The SPDs are programmed to JEDEC standard latency DDR3-1333MHz timing of 9-9-9 at 1.5V. Each 240-pin DIMM uses gold contact fingers and requires +1.5V. The JEDEC standard electrical and mechanical specifications are as follows:

FEATURES:

 $\underline{\mathbf{V}}$ JEDEC standard $1.5V \pm 0.075V$ Power Supply

 $VDDO = 1.5V \pm 0.075V$

1 667MHz fCK for 1333Mb/sec/pin

8 independent internal bank

Programmable CAS Latency: 5,6,7,8,9,10

Posted CAS

Programmable Additive Latency: 0, CL - 2, or CL - 1 clock

Programmable CAS Write Latency(CWL) = 7(DDR3-1333)

8-bit pre-fetch

Burst Length: 8 (Interleave without any limit, sequential with starting address "000" only), 4 with tCCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]

Bi-directional Differential Data Strobe

Internal(self) calibration : Internal self calibration through ZQ pin (RZQ : 240 ohm \pm 1%)

On Die Termination using ODT pin

Average Refresh Period 7.8us at lower then TCASE 85°C, 3.9us at 85°C < TCASE . 95°C

Asynchronous Reset

PCB: Height 1.88" (48.00mm) w/ heatsink, double sided component

PERFORMANCE:

CL(IDD) 9 cycles Row Cycle Time (tRCmin) 49.5ns (min.)

Refresh to Active/Refresh Command Time (tRFCmin)

Row Active Time (tRASmin)

Power

UL Rating

Operating Temperature

Storage Temperature

110ns

36ns (min.)

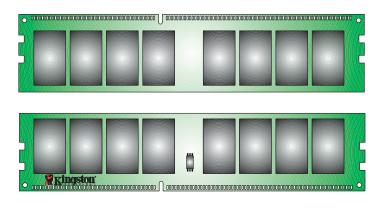
1.800 W (operating per module)

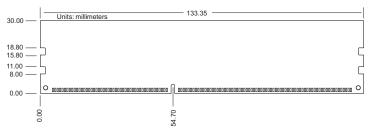
94 V - 0

0° C to 85° C

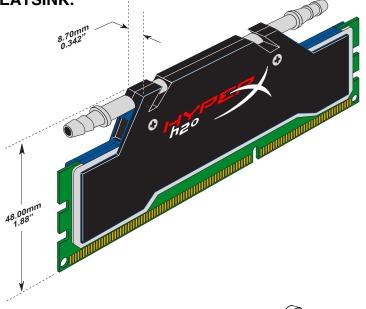
-55° C to +100° C

MODULE DIMENSIONS:

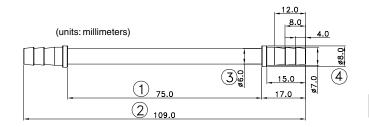


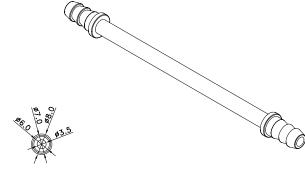


MODULE WITH HEATSINK:



COOLING TUBE DIMENSIONS:





1/4" (6.35mm) I.D. fluid hose recommended